

Application S/N 10/645,246
Amendment Dated: September 19, 2006
Response to Office Action dated: April 17, 2006

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REMARKS/ARGUMENTS

Claims 1-32 are pending in the application. In the Office Action, claims 1-32 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0013135 to Haddad (Haddad).

Applicants note that independent claim 1 recites the feature that the wireless subscriber unit will contend for an opportunity to transmit voice information at a second time that is subsequent to the first time (when transmissions from the access point during a service interval period will likely conclude). Similarly, independent claim 22 recites the step of receiving voice data transmissions from any one of the subscriber units on a contention basis. This claim also includes the step of preparing a beacon message that identifies those subscriber units for which the access point currently has data to transmit but not those subscriber units for which the access point currently has no data to transmit. Also, independent claim 27 recites a subscriber unit that has a controller that will cause a wireless transceiver to transmit to the access point to thereby contend for the WLAN communication resource when the subscriber unit has voice data to transmit.

Applicants submit that these features are not described by Haddad. In particular, the access point of Haddad broadcasts a beacon packet to all the stations assigned to the access point (see paragraph 0036), and the beacon packet "includes scheduling information of each active station ID and the respective reserved transmission period" (see paragraph 0030). In other words, in Haddad, the time in which each subscriber station may transmit to the access point is expressly reserved in the broadcast beacon packet. This scheduling process is performed irrespective of whether the access point

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has data to transmit to a particular subscriber unit, as the beacon packet is transmitted to all the subscriber units assigned to the access point (see paragraph 0036 – "...each station identifies the allocation information and maps the scheduled periods...").

In contrast, the present invention contemplates the subscriber units contending for transmission times, if the units need to transmit to the access point. That is, the access point is not responsible for setting the transmission times. The contention-based transmission is favorable over the reserved transmission of Haddad because the beacon packet of Haddad contains more data than is needed, takes a relatively long time to transmit and receive and is more susceptible to channel errors.

Moreover, because the contention-based scheme allows for the subscriber units to set their own transmission times, there are more opportunities for the subscriber units to enter a sleep mode. For example, a subscriber unit that has no uplink data to transmit to the access point may return to a sleep state once it learns that the access point has not identified it as a unit for which it has data to transmit. Conversely, because the access point in Haddad sets the transmission times for the subscriber units, each unit must respond to the access point during its assigned interval, even if it has no data to transmit to the access point. Those of skill in the art appreciate that not responding to an access point during an assigned interval is unacceptable because it wastes resources allocated by the access point to the subscriber unit and it gives the appearance that the subscriber unit has left the coverage area of the access point and, therefore, should be disassociated. As such, the technique described in the present invention provides a more efficient resource allocation and better power management than that shown in Haddad.

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The contention-based process of the present invention is also more efficient than that of Haddad if a subscriber unit fails to properly receive a beacon packet from the access point, such as in the case of a transmission error. In particular, a subscriber unit that has failed to receive the beacon packet may have voice that it needs to transmit to the access point. The subscriber unit, because it may remain awake to determine if the access point has transmitted data to it, can simply contend for a transmission time to send its data to the access point once the subscriber unit determines that the access point is done transmitting. Such a process is unavailable in Haddad, as the subscriber unit, if it fails to receive the beacon packet, must wait until the next beacon packet and resource allocation before it can transmit its data to the access point. That is, the subscriber unit is unable to identify its assigned interval, and as such, the resources allocated during the assigned interval are lost. Thus, the present invention provides better error recovery and more efficient resource allocation as compared to Haddad.

Accordingly, Applicants submit that independent claims 1, 22 and 27 are patentable over the prior art. Applicants also believe that those claims that depend from independent claims 1, 22 and 27 are patentable over the prior art, both based on their dependencies on the independent claims and their patentability on their own. Reconsideration and withdrawal of the rejection of the claims is respectfully requested. Passing of this case is now believed to be in order, and a Notice of Allowance is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing

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No. 3575 P. 18

Application S/N 10/645,246
Amendment Dated: September 19, 2006
Response to Office Action dated: April 17, 2006

SEP 19 2006

CML00832J

the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicants' attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

The Commissioner is hereby authorized to charge any necessary fee, or credit any overpayment, to Motorola, Inc. Deposit Account No. 50-2117.

Respectfully submitted,



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